

ABSTRACT

A semiconductor device includes a substrate having a chip mounting surface and a package surface. The semiconductor chip is mounted on the substrate and has electrode pads formed on a circuit forming surface thereof.

5 The chip also has an insulating layer formed on the circuit forming surface and includes an opening for exposing the surface of electrode pads, conductive posts over the insulating layer, and re-distribution wirings formed on the insulating layer. The device has further has external terminals disposed on the package surface; substrate pads formed on the chip mounting surface,
10 internal wirings formed on the chip mounting surface, and a sealing resin for sealing the chip mounting surface and the semiconductor chip.